



6560-50-P

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 63**

**[EPA-HQ-OAR-2006-0790; FRL-9951-64-OAR]**

**RIN 2060-AS10**

**National Emission Standards for Hazardous Air Pollutants for  
Area Sources: Industrial, Commercial, and Institutional Boilers**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule; notice of final action on reconsideration.

**SUMMARY:** This action sets forth the Environmental Protection Agency's (EPA's) final decision on the issues for which it announced reconsideration on January 21, 2015, that pertain to certain aspects of the February 1, 2013, final amendments to the "National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers" (Area Source Boilers Rule). The EPA is retaining the subcategory and separate requirements for limited-use boilers, consistent with the February 2013 final rule. In addition, the EPA is amending three reconsidered provisions regarding: the alternative particulate matter (PM) standard for new oil-fired boilers; performance testing for PM for certain boilers based on their initial compliance test; and fuel sampling for mercury (Hg) for certain coal-fired boilers based on their initial compliance demonstration, consistent with the alternative

provisions for which comment was solicited in the January 2015 proposal. The EPA is making minor changes to the proposed definitions of startup and shutdown based on comments received. This final action also addresses a limited number of technical corrections and clarifications on the rule, including removal of the affirmative defense for malfunction in light of a court decision on the issue. These corrections will clarify and improve the implementation of the February 2013 final Area Source Boilers Rule. In this action, the EPA is also denying the requests for reconsideration with respect to the issues raised in the petitions for reconsideration of the final Area Source Boilers Rule for which reconsideration was not granted.

**DATES:** This final rule is effective on September 14, 2016.

**ADDRESSES:** The EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2006-0790. All documents in the docket are listed on the <http://www.regulations.gov> Web site. Although listed in the index, some information is not publicly available, e.g., confidential business information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through <http://www.regulations.gov> or in hard copy at the EPA Docket Center, EPA/DC, EPA WJC West Building,

Room 3334, 1301 Constitution Ave., NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the Docket Center is (202) 566-1742.

**FOR FURTHER INFORMATION CONTACT:** Ms. Mary Johnson, Energy Strategies Group, Sector Policies and Programs Division (D243-01), Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541-5025; fax number: (919) 541-5450; email address: [johnson.mary@epa.gov](mailto:johnson.mary@epa.gov).

**SUPPLEMENTARY INFORMATION:** Acronyms and Abbreviations. A number of acronyms and abbreviations are used in this preamble. While this may not be an exhaustive list, to ease the reading of this preamble and for reference purposes, the following terms and acronyms are defined as follows:

ACC	American Chemistry Council
AF&PA	American Forest and Paper Association
Btu	British thermal unit
CAA	Clean Air Act
CEMS	Continuous emissions monitoring systems
CFR	Code of Federal Regulations
CIBO	Council of Industrial Boiler Owners
CO	Carbon monoxide
CRA	Congressional Review Act
EGU	Electric Utility Steam Generating Unit
EPA	U.S. Environmental Protection Agency
GACT	Generally available control technology
HAP	Hazardous air pollutant(s)
Hg	Mercury
ICI	Industrial, Commercial, and Institutional
ICR	Information collection request

MACT	Maximum achievable control technology
MMBtu/hr	Million British thermal units per hour
NAICS	North American Industrial Classification System
NESHAP	National Emission Standards for Hazardous Air Pollutants
NRDC	Natural Resources Defense Council
NSPS	New Source Performance Standards
NTTAA	National Technology Transfer and Advancement Act
OMB	Office of Management and Budget
PM	Particulate matter
ppm	Parts per million
PRA	Paperwork Reduction Act
RFA	Regulatory Flexibility Act
The Court	United States Court of Appeals for the District of Columbia Circuit
TSM	Total selected metals
UMRA	Unfunded Mandates Reform Act
U.S.C.	United States Code
WWW	World Wide Web

Organization of this Document. The following outline is provided to aid in locating information in this preamble.

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**I. General Information**

A. Does this action apply to me?

Categories and entities potentially affected by this reconsideration action include those listed in Table 1 of this preamble.

**Table 1. Regulated Entities**

Category	North American Industrial Classification System (NAICS) code	Examples of potentially regulated entities
Any area source facility	321	Manufacturers of lumber and wood products
	11	Agriculture, greenhouses

using a boiler as defined in the final rule	311	Food manufacturing
	327	Nonmetallic mineral product manufacturing
	424	Wholesale trade, nondurable goods
	531	Real estate
	611	Educational services
	813	Religious, civic, professional, and similar organizations
	92	Public administration
	722	Food services and drinking places
	62	Health care and social assistance
	22111	Electric power generation

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by this final action. To determine whether your facility would be affected by this final action, you should examine the applicability criteria in 40 CFR 63.11193 of subpart JJJJJJ. If you have any questions regarding the applicability of this final action to a particular entity, consult either the air permitting authority for the entity or your EPA Regional representative as listed in 40 CFR 63.13 (General Provisions).

B. How do I obtain a copy of this document and other related information?

The docket number for this final action regarding the Area Source Boilers Rule (40 CFR part 63, subpart JJJJJJ) is Docket ID No. EPA-HQ-OAR-2006-0790.

In addition to being available in the docket, an electronic copy of this document will also be available on the World Wide

Web (WWW). Following signature, a copy of this document will be posted at <https://www3.epa.gov/ttn/atw/boiler/boilerpg.html>.

### C. Judicial Review.

Under Clean Air Act (CAA) section 307(b)(1), judicial review of this final rule is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit (the Court) by November 13, 2016. Under CAA section 307(d)(7)(B), only an objection to this final rule that was raised with reasonable specificity during the period for public comment can be raised during judicial review. Note, under CAA section 307(b)(2), the requirements established by this final rule may not be challenged separately in any civil or criminal proceedings brought by the EPA to enforce these requirements.

## **II. Background Information**

On March 21, 2011, the EPA established final emission standards for control of hazardous air pollutants (HAP) from industrial, commercial, and institutional (ICI) boilers located at area sources of HAP – the Area Source Boilers Rule (76 FR 15554). On February 1, 2013, the EPA promulgated final amendments to the Area Source Boilers Rule (78 FR 7488). Following that action, the Administrator received three petitions for reconsideration that identified certain issues

that petitioners claimed warranted further opportunity for public comment.

The EPA received a petition dated April 1, 2013, from the American Forest and Paper Association (AF&PA), on their behalf and on behalf of the American Wood Council, National Association of Manufacturers, Biomass Power Association, Corn Refiners Association, National Oilseed Processors Association, Rubber Manufacturers Association, Southeastern Lumber Manufacturers Association and the U.S. Chamber of Commerce. The EPA received a petition dated April 2, 2013, from the Council of Industrial Boiler Owners (CIBO) and the American Chemistry Council (ACC). Finally, the EPA received a petition dated April 2, 2013, from Earthjustice, on behalf of the Sierra Club, Clean Air Council, Partnership for Policy Integrity, Louisiana Environmental Action Network and the Environmental Integrity Project.

In response to the petitions, the EPA reconsidered and requested comment on five provisions of the February 1, 2013, final amendments to the Area Source Boilers Rule. The EPA published the proposed notice of reconsideration in the **Federal Register** on January 21, 2015 (80 FR 2871).

In this rulemaking, the EPA is taking final action with respect to the five issues raised by petitioners in their petitions for reconsideration on the 2013 final amendments to the Area Source Boilers Rule and for which reconsideration was



granted. Section III of this preamble presents the EPA's final decision on these issues and discusses our rationale for the decisions. Additionally, the EPA is finalizing the technical corrections and clarifications that were proposed to correct inadvertent errors in the final rule and to provide the intended accuracy, clarity, and consistency. Most of the corrections and clarifications remain the same as described in the proposed notice of reconsideration on January 21, 2015, and those changes are being finalized without further discussion. However, the EPA has refined its approach to some issues in this final rule after consideration of the public comments received on the proposed notice of reconsideration. The changes are to clarify applicability and implementation issues raised by the commenters and are discussed in section IV of this preamble. For a complete summary of the comments received and our responses thereto, please refer to the document "Response to 2015 Reconsideration Comments for Industrial, Commercial, and Institutional Boilers at Area Sources: National Emission Standards for Hazardous Air Pollutants" located in the docket.

### **III. Summary of Final Action on Issues Reconsidered**

The five reconsideration issues for which amendments are being finalized in this rulemaking are: (1) definitions of startup and shutdown; (2) alternative PM standard for new oil-fired boilers that combust low-sulfur oil; (3) establishment of

a subcategory and separate requirements for limited-use boilers; (4) provision that eliminates further performance testing for PM for certain boilers based on their initial compliance test; and (5) provision that eliminates further fuel sampling for Hg for certain coal-fired boilers based on their initial compliance demonstration. Each of these issues is discussed in detail in the following sections of this preamble.

A. Definitions of Startup and Shutdown

In the February 1, 2013, final amendments to the Area Source Boilers Rule, the EPA finalized revisions to the definitions of startup and shutdown, which were based on the time during which fuel is fired in the affected unit for the purpose of supplying steam or heat for heating and/or producing electricity or for any other purpose. Petitioners asserted that the public lacked an opportunity to comment on the amended definitions and that the definitions were not sufficiently clear. In response to these petitions, in the January 21, 2015, proposed notice of reconsideration (80 FR 2871), we solicited comment on the definitions of startup and shutdown that were promulgated in the February 2013 final rule as well as additional revisions we proposed to make to those definitions. Specifically, we proposed to revise the February 2013 definition of startup to include an alternate definition of startup. The alternate definition clarified when startup begins for new

boilers to address pre-startup testing activities that are done as part of installing a new boiler and when startup ends for first-ever startups as well as startups occurring after shutdown events. The alternate definition of startup as well as the definition of shutdown incorporated a new term "useful thermal energy" to replace the term "steam and heat" to address petitioners' concerns of an ambiguous end of the startup period.

In this action, the EPA is adopting two alternative definitions of "startup," consistent with the proposed rule. The first definition defines "startup" to mean the first-ever firing of fuel, or the firing of fuel after a shutdown event, in a boiler for the purpose of supplying useful thermal energy for heating and/or producing electricity or for any other purpose. Under this definition, startup ends when any of the useful thermal energy from the boiler is supplied for heating, producing electricity, or any other purpose. The EPA is also adopting an alternative definition of "startup" which defines the period as beginning with the first-ever firing of fuel, or the firing of fuel after a shutdown event, in a boiler for the purpose of supplying useful thermal energy for heating, cooling, or process purposes or for producing electricity, and ending 4 hours after the boiler supplies useful thermal energy for those purposes.

In the February 1, 2013, final rule, the EPA defined "shutdown" to mean the cessation of operation of a boiler for any purpose, and said this period begins either when none of the steam or heat from the boiler is supplied for heating and/or producing electricity or for any other purpose, or when no fuel is being fired in the boiler, whichever is earlier. The EPA received petitions for reconsideration of this definition, asking that the agency clarify the term. The EPA proposed a definition of "shutdown" in January 2015 which clarified that shutdown begins when the boiler no longer makes useful thermal energy (rather than referring to steam or heat supplied by the boiler) for heating, cooling, or process purposes or generates electricity, or when no fuel is being fed to the boiler, whichever is earlier. In this action, the EPA is adopting a definition of "shutdown" that is consistent with the proposal, with some minor clarifying revisions. "Shutdown" is defined to begin when the boiler no longer supplies useful thermal energy (such as steam or hot water) for heating, cooling, or process purposes or generates electricity, or when no fuel is being fed to the boiler, whichever is earlier. Under this definition, shutdown ends when the boiler no longer supplies useful thermal energy (such as steam or hot water) for heating, cooling, or process purposes or generates electricity, and no fuel is being combusted in the boiler.

The EPA received several comments on the proposed definitions of "useful thermal energy," "startup," and "shutdown."

#### 1. Useful Thermal Energy

Several commenters supported the amended definitions of startup and shutdown that include the concept of useful thermal energy, which recognizes that small amounts of steam or heat may be produced when starting up a unit, but the amounts would be insufficient to operate processing equipment and insufficient to safely initiate pollution controls.

One commenter requested that the EPA add the term "flow rate" to the definition of useful thermal energy, consistent with discussion in the preamble to the proposed notice of reconsideration (80 FR 2874). The EPA recognizes the importance of flow rate as a parameter for determining when useful thermal energy is being supplied by a boiler and has added this term to the definition of useful thermal energy in the final rule.

#### 2. Startup

One commenter stated that work practice standards are allowed only if pollution is not emitted through a conveyance or the application of measurement methodology to a particular class of sources is not practicable, and the EPA has not stated either of these to be the case. The commenter also claimed that, because the EPA has changed and extended startup and shutdown

periods, the EPA must determine that emissions measurement is impracticable during startup and shutdown as they are now defined, which the EPA has not done.

The EPA recognizes the unique characteristics of ICI boilers and has retained the alternate definition, which incorporates the term "useful thermal energy" in the final rule, with some slight adjustments, as discussed previously. Contrary to the commenter's assertion, the EPA did make a determination under CAA section 112(h) that it is not feasible to prescribe or enforce a numeric emission standard during periods of startup and shutdown because the application of measurement methodology is impracticable due to technological and economic limitations. Specifically, the March 2011 final rule required a work practice standard for coal-fired boilers during periods of startup and shutdown. See 76 FR 15576-15577. Test methods are required to be conducted under isokinetic conditions (i.e., steady-state conditions in terms of exhaust gas temperature, moisture, flow rate) which are difficult to achieve during these periods of startup and shutdown where conditions are constantly changing. Moreover, accurate HAP data from those periods are unlikely to be available from either emissions testing (which is designed for periods of steady state operation) or monitoring instrumentation such as continuous emissions monitoring systems (CEMS) (which are designed for measurements occurring during

periods other than during startup or shutdown when emissions flow are stable and consistent). Upon review of this information, the EPA determined that it is not feasible to require stack testing during periods of startup and shutdown due to physical limitations and the short duration of startup and shutdown periods. Based on these specific facts for coal-fired boilers in the boilers source category, the EPA established a separate work practice standard for startup and shutdown periods.<sup>1</sup> The Court of Appeals recently approved the EPA's approach to developing a start-up work practice and to making a (non)feasibility determination in United States Sugar Corp v. EPA (No. 11-1108, D.C. Cir., July 29, 2016) (slip op. at 155). We continue to conclude that testing is impracticable during periods of startup and shutdown as those terms are defined in this final action. We set standards based on available information as contemplated by CAA section 112. Compliance with the numeric emission limits (i.e., PM, Hg, and carbon monoxide (CO)) is demonstrated by conducting performance stack tests. The revised definitions of startup and shutdown better reflect when

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<sup>1</sup> Coal-fired boilers are the only subcategory for which we set maximum achievable control technology (MACT)-based standards. The requisite findings under CAA section 112(h) for work practices are only necessary for the large coal-fired boiler subcategory. For large new oil-fired and biomass-fired boilers, the EPA set generally available control technology (GACT) management practice standards under CAA section 112(d)(5). The provisions of CAA section 112(h) do not apply to setting GACT standards.

steady-state conditions are achieved, which are required to yield meaningful results from current testing protocols.

Several commenters agreed with the EPA that startup "should not end until such time that all control devices have reached stable conditions" (see 80 FR 2875, column 2), but questioned the EPA's analysis of data from electric utility steam generating units (EGUs) to determine the alternate startup definition and disagreed with the EPA's conclusion that 4 hours is an appropriate length of time for startup. The commenters stated that a work practice approach during startup and shutdown is appropriate and should be site-specific due to the many designs and applications of industrial boilers. One commenter provided information obtained from an informal survey of its members for 76 units on the time needed to reach stable conditions during startup (CIBO data).

As stated in the January 2015 proposal, the EPA had very limited information specifically for industrial boilers on the hours needed for controls to reach stable conditions after the start of supplying useful thermal energy. However, the EPA did have information for EGUs on the hours to stable control operation after the start of electricity generation. Given that the startup provisions need to be based on "best performers," we found that controls used on the best performing 12-percent EGUs reach stable operation within 4 hours after the start of



electricity generation. Since the types of controls used on EGUs are similar to those used on industrial boilers and the start of electricity generation is similar to the start of supplying useful thermal energy, we continue to believe that the controls on the best performing industrial boilers would also reach stable operation within 4 hours after the start of supplying useful thermal energy and have included this timeframe in the final alternate definition. This conclusion was supported by the limited information (13 units) the EPA had on industrial boilers and by CIBO data (76 units).<sup>2</sup>

One commenter suggested that the first definition of startup be revised to incorporate the term "useful thermal energy" to clarify that startup has ended when the boiler is supplying steam or heat at the proper temperature, pressure, and flow to the energy use systems being served, not immediately after supplying any amount of heat for any incidental purpose.

The EPA has adjusted the first definition of startup to replace "steam or heat" with "useful thermal energy (such as steam or hot water)" consistent with the terminology in the alternate definition. Additionally, the term "useful thermal energy" was revised to incorporate a minimum flow rate to more appropriately reflect when the energy is provided for any

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<sup>2</sup> See EPA's July 2016 memorandum, "Assessment of Startup Period for Industrial Boilers," available in the rulemaking docket (Docket ID No. EPA-HQ-OAR-2006-0790).

primary purpose of the unit. Together, these changes alleviate the concerns of when the startup period functionally ends.

Boilers should be considered to be operating normally at all times energy (i.e., steam or hot water) of the proper pressure, temperature, and flow rate is being supplied to a common header system or energy user(s) for use as either process steam or for the cogeneration of electricity.

### 3. Shutdown

Multiple commenters supported the EPA's proposed definition of shutdown. One commenter noted the revised definition's accommodation of the fact that combustion does not end when the fuel feed is turned off in a grate system because fuel remaining on a grate continues to combust although fuel has been cut off. To further clarify that the shutdown period begins when no useful steam or electricity is generated, or when fuel is no longer being combusted in the boiler, the EPA has adjusted the definition of shutdown to replace the phrase "makes useful thermal energy" to "supplies useful thermal energy." The term "supplies" best serves the intended meaning of the definition of shutdown and, in addition, is consistent with the definition of startup.

### B. Alternative PM Standard for New Oil-Fired Boilers That Combust Low-Sulfur Oil

In the February 1, 2013, final amendments to the Area Source Boilers Rule, the EPA added a new provision that specifies that certain new or reconstructed oil-fired boilers with heat input capacity of 10 million British thermal units per hour (MMBtu/hr) or greater that combust low-sulfur oil meet GACT for PM, providing the type of fuel combusted is monitored and recorded on a monthly basis. Specifically, the provision applies to boilers combusting only oil that contains no more than 0.50 weight percent sulfur or a mixture of 0.50 weight percent sulfur oil with other fuels not subject to a PM emission limit under this subpart and that do not use a post-combustion technology (except a wet scrubber) to reduce PM or sulfur dioxide emissions. The EPA received a petition asserting that the public lacked an opportunity to comment on the new provision for low-sulfur liquid burning boilers as well as the definition of low-sulfur liquid fuel. In response to the petition, in the January 21, 2015, proposal, we solicited comment on the February 2013 provision, as well as on (1) whether and, if so, to what extent, burning low-sulfur liquid fuels, as defined under the final rule, would control the urban metal HAP for which the category of sources was listed and for which PM serves as a surrogate (i.e., Hg, arsenic, beryllium, cadmium, lead, chromium, manganese, nickel) and (2) whether the final rule's definition

of low-sulfur would allow emissions to exceed the final rule's emission limit for PM (i.e., 0.03 pound (lb)/MMBtu).

We also solicited comment on an alternative PM standard for new oil-fired boilers that combust "ultra-low-sulfur liquid fuel," which would be defined as fuel containing no more than 15 parts per million (ppm) sulfur, citing the threshold in the National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE NESHP) and the National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (Boiler MACT). Specifically, we requested comment on an alternative provision to the February 2013 final rule's alternative PM standard for new oil-fired boilers that combust low-sulfur oil that would specify that new or reconstructed oil-fired boilers with heat input capacity of 10 MMBtu/hr or greater that combust only ultra-low-sulfur liquid fuel meet GACT for PM providing the type of fuel combusted is monitored and recorded on a monthly basis. We also requested comment on whether and, if so, to what extent burning ultra-low-sulfur liquid fuels (i.e., distillate oil that has less than or equal to 15 ppm sulfur) would control the urban metal HAP for which the category of sources were listed.

In this action, the EPA is finalizing an alternative PM standard for new oil-fired boilers that combust ultra-low-sulfur

liquid fuel, as described immediately above and in the January 2015 proposal, in place of the February 2013 final rule's alternative PM standard for new oil-fired boilers that combust low-sulfur oil, as discussed later in this section of the preamble.

Several commenters agreed with the provision that specifies that boilers combusting low-sulfur oil meet GACT for PM, consistent with the exemption for low-sulfur oil burning boilers in 40 CFR part 60, subpart Dc. One commenter asserted that PM emissions from oil-fired boilers are a function of the sulfur content of the fuel and, because low-sulfur oil has lower PM than high sulfur oil, it necessarily has lower HAP as well. However, another commenter, reiterating many points made in its petition for reconsideration on this topic, asserted that the alternative PM standard for new oil-fired boilers that combust low-sulfur oil is unlawful and arbitrary because the EPA has not shown that the use of low-sulfur liquid fuels will provide meaningful reductions of the urban metal HAP for which area source boilers were listed under CAA section 112(c)(3), and, therefore, its use cannot be GACT.

Two commenters disagreed with the alternative PM standard for new oil-fired boilers that combust low-sulfur oil, as defined in the Area Source Boilers Rule (i.e., oil that contains no more than 0.50 weight percent sulfur). The commenters

suggested that fuel oils with a sulfur content of 0.50 weight percent correspond to residual oils, which are associated with higher HAP emissions. The commenters claimed that the rule's definition of low sulfur is too lenient and that boilers combusting fuel oils with 0.50 weight percent sulfur may have PM emissions that exceed the PM emission limit. One of the commenters provided data showing a range of PM emissions between 0.035 to 0.062 lb/MMBtu for four boilers burning oil containing 0.5 weight percent sulfur. On the contrary, one commenter provided graphs of PM emissions data for oil-fired boilers indicating that most of the PM emissions from the boilers burning #2 oil were below the PM emission limit of 0.03 lb/MMBtu.

Several commenters supported an alternative PM standard for new oil-fired boilers combusting ultra-low-sulfur fuels containing no more than 15 ppm sulfur. Another commenter argued that the EPA must show that the use of ultra-low-sulfur liquid fuels will substantially reduce emissions of the urban metal HAP for which area source boilers were listed. The commenter noted that the EPA's finding that use of ultra-low-sulfur fuel significantly reduces emissions of hazardous metals when used in engines, as referenced in the January 2015 proposal, does not support such a conclusion with regard to use of ultra-low-sulfur fuel in area source boilers.

Based on our review of data in the record, additional data obtained from public sources, and public comments, the EPA is finalizing an alternative PM standard that specifies that new or reconstructed oil-fired boilers with heat input capacity of 10 MMBtu/hr or greater that combust only ultra-low-sulfur liquid fuel meet GACT for PM providing the type of fuel combusted is monitored and recorded on a monthly basis. If the source intends to burn a fuel other than ultra-low-sulfur liquid fuel or gaseous fuels as defined in 40 CFR part 63, subpart JJJJJJ, they are required to conduct a performance test within 60 days of burning the new fuel. New or reconstructed oil-fired boilers that commenced construction or reconstruction on or before publication of this final action and that are currently meeting the alternative PM standard for low-sulfur oil burning boilers are provided 3 years from publication of this action before becoming subject to the PM emission limit, providing them time to decide how to comply (i.e., combust only ultra-low-sulfur liquid fuel or conduct a performance test demonstrating compliance).

We have determined that PM emissions from boilers firing liquid fuels containing 0.50 weight percent sulfur as allowed under the February 2013 alternative PM standard may exceed the Area Source Boilers Rule PM limit for oil-fired boilers of 0.03 lb/MMBtu, but that PM emissions from boilers firing liquid fuels

containing equal to or less than 15 ppm sulfur (i.e., ultra-low-sulfur liquid fuel) will not exceed the PM limit. A review of information regarding liquid fuel sulfur content and PM emissions levels in the records for the boiler rules found that of the 10 liquid fuel area source boilers that reported PM emissions that exceeded the PM limit in their information collection request (ICR) responses, none fired liquid fuel with sulfur content less than 15 ppm. However, one boiler with emissions exceeding the PM limit (i.e., 0.061 lb/MMBtu) reported that the level of sulfur in their fuel was 0.2 weight percent, a level that is above 15 ppm (0.0015 weight percent), but below the low-sulfur liquid fuel threshold of 0.50 weight percent in the 2013 final rule. Based on these data, along with comments indicating that boilers burning oil containing 0.50 percent sulfur can emit PM at levels above the PM limit, the EPA concludes that the rule's definition of low-sulfur (i.e., 0.50 weight percent) would potentially allow emissions exceeding the PM emission limit, but that boilers burning oil containing no more than 15 ppm sulfur would not emit PM at levels above the PM limit.

In addition, we have determined that burning ultra-low-sulfur liquid fuel controls urban metal HAP. The ultra-low-sulfur liquid fuel threshold of 15 ppm sulfur we are adopting in the final Area Source Boilers Rule is consistent with the sulfur



threshold in the Boiler MACT that allows for a reduced PM (or, alternatively, total selected metals (TSM)) testing frequency for light liquid boilers. Further, the PM emission limit for light liquid boilers at major sources is significantly lower than the limit for area source oil-fired boilers (0.0079 lb/MMBtu (existing units) and 0.0011 lb/MMBtu (new units) instead of 0.03 lb/MMBtu). A review of available information for major source boilers burning ultra-low-sulfur liquid fuel identified one major source facility that reported fuel analyses for TSM (i.e., arsenic, beryllium, cadmium, chromium, lead, manganese, nickel, and selenium) and Hg, and those fuel analyses showed that each boiler had TSM and Hg emissions below detection limits and the applicable Boiler MACT TSM and Hg emission limits. The fact that boilers burning ultra-low-sulfur liquid fuel have the ability to meet the TSM and Hg limits based on the best-performing major source boilers provides sound support for our determination that the use of ultra-low-sulfur liquid fuel in area source boilers will reduce emissions of urban metal HAP.

A detailed discussion of our findings is included in the "Response to 2015 Reconsideration Comments for Industrial, Commercial, and Institutional Boilers at Area Sources: National Emission Standards for Hazardous Air Pollutants" located in the docket.

C. Establishment of a Subcategory and Separate Requirements for Limited-Use Boilers

In the February 1, 2013, final amendments to the Area Source Boilers Rule, the EPA established a limited-use boiler subcategory that includes any boiler that burns any amount of solid or liquid fuels and has a federally enforceable average annual capacity factor of no more than 10 percent. Separate requirements for this subcategory of boilers that operate on a limited basis were also established. Specifically, limited-use boilers are required to complete a tune-up every 5 years. The EPA received a petition asserting that the public lacked an opportunity to comment on the new limited-use boiler subcategory, as well as the tune-up requirement established for the new subcategory. In response to the petition, in the January 21, 2015, proposal, we solicited comment regarding whether the separate requirements for a limited-use boiler subcategory are necessary or appropriate. The EPA is retaining the limited-use boiler subcategory and its separate requirements, as discussed later in this section of the preamble.

Multiple commenters agreed that separate requirements for limited-use boilers are appropriate. One commenter asserted that limited-use boilers qualify for subcategorization due to unique operating characteristics that merit class and type distinctions allowed under CAA section 112(d)(1). Two commenters explained

that these units spend a larger percentage of time starting up and shutting down than regular-use boilers which causes their emissions profiles to be different, and many pollution control technologies are difficult to use or ineffective during startup and shutdown and would be cost-prohibitive to install and use. One commenter stated that the designation of a limited-use boiler subcategory is appropriately consistent with the similar subcategory for seasonal boilers. Several commenters stated that a limited-use boiler subcategory is appropriately consistent with the similar limited-use subcategory in the Boiler MACT.

Multiple commenters supported the 5-year tune-up requirement for limited-use boilers. Two commenters stated that it would be illogical to require such boilers to comply with the same tune-up schedule as other boilers, which is every 2 years, given their limited operational time and intermittent operating schedules. One commenter claimed that more frequent tune-ups would not provide any meaningful environmental benefits given the limited operating profiles of limited-use units, noting that despite the 5-year tune-up frequency, limited-use boilers will still conduct tune-ups after less operating time than boilers in other subcategories.

One commenter objected to the EPA's decision to create a separate subcategory for these boilers and for requiring nothing more than one tune-up every 5 years for these boilers. The

commenter stated that the limited-use boilers subcategory is unlawful and arbitrary because the EPA is not distinguishing between different classes, types, or sizes of sources and has not explained why boilers operating for fewer total hours during the year is a distinction that requires differential treatment. The commenter further stated that infrequent tune-ups are neither a control technology nor a management practice that will reduce emissions and that nothing in the record demonstrates that the requirement to conduct a tune-up every 5 years will actually reduce emissions of HAP. The commenter asserted that in light of the determination that more frequent tune-ups are GACT for other area boilers, it is unlawful and arbitrary for the EPA to require tune-ups for limited-use boilers only every 5 years.

The EPA has retained the subcategory and separate requirements for limited-use boilers as finalized in the February 2013 final rule. We disagree with the comments objecting to the limited-use boiler subcategory and the requirement that limited-use boilers complete a tune-up every 5 years. The EPA has concluded that limited-use boilers are a unique class of unit based on the unique way in which they are used (i.e., they operate for unpredictable periods of time, limited hours, and at less than full load in many cases) and has determined that regulating these units with periodic tune-up work practice and management practice requirements will limit

HAP by ensuring that these units operate at peak efficiency during the limited hours that they do operate. In the preamble to the June 4, 2010, proposed standards for area source boilers, the EPA explained that a boiler tune-up provides potential savings from energy efficiency improvements and pollution prevention, and that improvement in energy efficiency results in decreased fuel use which results in a corresponding decrease in emissions (both HAP and non-HAP) from the boiler (75 FR 31908). Specifically, for any boiler conducting a tune-up, a 1-percent gain in combustion efficiency was estimated, resulting in an estimated 1-percent emissions reduction of all pollutants.<sup>3</sup>

The EPA continues to conclude, as previously stated in the February 2013 final rule, that establishing a limited-use subcategory was reasonable. First, we pointed out that it is technically infeasible to test these limited-use boilers since these units serve as back-up energy sources and their operating schedules can be intermittent and unpredictable. Next, we pointed out that boilers that operate no more than 10 percent of the year (i.e., a limited-use boiler) would operate for no more than 6 months in between tune-ups on a 5-year tune-up cycle. We then explained that the brief period of operations for these

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<sup>3</sup> "Revised Methodology for Estimating Impacts from Industrial, Commercial, Institutional Boilers at Area Sources of Hazardous Air Pollutant Emissions" (Docket entry: EPA-HQ-OAR-2006-0790-2314).

limited-use boilers is even less than the number of operating months that seasonal boilers and full-time boilers will operate between tune-ups. Finally, we noted that the irregular schedule of operations also makes it difficult to schedule more frequent tune-ups.

D. Establishment of a Provision That Eliminates Further Performance Testing for PM for Certain Boilers Based on Their Initial Compliance Test

In the February 1, 2013, final amendments to the Area Source Boilers Rule, the EPA added a new provision that specifies that further PM emissions testing does not need to be conducted if, when demonstrating initial compliance with the PM emission limit, the performance test results show that the PM emissions from the affected boiler are equal to or less than half of the applicable PM emission limit. The EPA received a petition asserting that the public lacked opportunity to comment on the new provision that eliminates further performance testing for PM for certain boilers based on their initial compliance test. In response to the petition, in the January 21, 2015, proposal, we solicited comment on the February 2013 provision, specifically requesting comment and supporting information on the magnitude and range of variability in PM and urban metal HAP emissions from individual boilers. More specifically, we requested comment on whether the emissions variability at an

individual boiler could result in an exceedance of the PM limit by such boiler whose PM emissions are demonstrated to be equal to or less than half of the PM emission limit (i.e., a doubling or more of PM emissions). We also requested comment on whether a requirement to burn only the fuel types and mixtures used to demonstrate that a boiler's PM emissions are equal to or less than half of the PM limit would limit PM emissions variability.

The EPA also solicited comment on an alternative provision that would specify less frequent performance testing for PM based on the initial compliance test. Instead of eliminating further PM performance testing, the alternative provision would specify that when demonstrating initial compliance with the PM emission limit, if the performance test results show that the PM emissions from the affected boiler are equal to or less than half of the applicable PM emission limit, additional PM emissions testing would not need to be conducted for 5 years. We stated that, in such instances, the owner or operator would be required to continue to comply with all applicable operating limits and monitoring requirements. We requested comment on also including a requirement that the owner or operator only burn the fuel types and fuel mixtures used to demonstrate that the PM emissions from the affected boiler are equal to or less than half of the applicable PM emission limit.

In this action, the EPA is finalizing the alternative provision that requires further PM performance testing every 5 years for certain boilers based on their initial compliance test, as described immediately above and in the January 2015 proposal, in place of the February 2013 final rule's provision that eliminated further PM performance testing for such boilers, as discussed later in this section of the preamble. As also discussed in this section of the preamble, we are finalizing a requirement that a PM performance test must be conducted if the owner or operator decides to use a fuel type, other than ultra-low-sulfur liquid fuel or gaseous fuels, that was not used when demonstrating that the PM emissions from their boiler were equal to or less than half of the PM emission limit.

Several commenters agreed with the provision that eliminates further PM performance testing when initial compliance tests show that PM emissions are equal to or less than half of the limit and that requires the owner or operator to continue to comply with all applicable operating limits and monitoring requirements. One commenter agreed with the provision eliminating further PM performance testing as long as the owner or operator is required to burn only the fuel types and mixtures used during the initial testing. Two commenters noted that the provision promotes good PM performance from new boilers while acknowledging that some boilers are inherently low-emitting and



should be spared the expense of ongoing performance testing where operations remain consistent. One commenter stated that by setting the threshold at equal to or less than half of the emission limit, there is sufficient buffer against the limit to account for any variability in emission levels, and added that because the unit must continue to comply with operating limits and monitoring requirements, there are safeguards to ensure there are no changes in operation of the boiler or air pollution control equipment that could increase emissions. Another commenter claimed that the provision is in line with other MACT standards and new source performance standards (NSPS) which require only one initial performance test unless there is a physical change to the control device, and added that HAP emissions change only when operating parameters change or when design changes occur.

Two commenters objected to the provision that eliminates further PM performance testing when initial compliance tests show that PM emissions are equal to or less than half of the limit. One commenter claimed that there are no requirements to prevent the facility from changing the fuel type and fuel mixture from those used in the initial compliance testing and a change in fuel type or mixture could result in an increase in PM emissions. Another commenter asserted that it is arbitrary to conclude that a source that measures low emissions in one test

will have emissions below the limit thereafter. The commenter claimed that many boilers burn combinations of fuels of varying proportions (e.g., biomass and coal), and because sources are allowed to change their fuel mix within a given fuel type and to change their fuel supplier without changing subcategories, PM emissions from an individual source are likely to be highly variable. The commenter further noted that the EPA has routinely acknowledged the variability inherent in industrial boiler emissions, and that EPA data demonstrate that PM emissions from boilers are highly variable.

For the same reasons, these two commenters also objected to the alternative provision that would require less frequent (once every 5 years) PM performance testing when initial compliance tests show that PM emissions are equal to or less than half of the limit in lieu of totally eliminating further PM performance testing. One commenter, however, provided an alternative recommendation that eliminates further PM testing as long as sources whose initial compliance testing showed PM emissions equal to or less than half of the limit continue to combust the same fuel type and mixture used during the initial compliance testing. Under the commenter's alternative, if the source elects to change the fuel type or mixture being combusted, the source would be required to demonstrate compliance with the PM emission

limit no more than 60 days after the change in fuel type or mixture.

Based on our review of the public comments and data available on PM and metallic HAP emissions for which PM serves as a surrogate, the EPA is finalizing the provision that specifies that further PM emissions testing does not need to be conducted for 5 years if, when demonstrating initial compliance with the PM emission limit, the performance test results show that the PM emissions from the affected boiler are equal to or less than half of the applicable PM emission limit. In such instances, the owner or operator would be required to continue to comply with all applicable operating limits and monitoring requirements. If the source burns a new type of fuel other than ultra-low-sulfur liquid fuel or gaseous fuels, then a new performance test is required within 60 days of burning the new fuel type. New or reconstructed boilers that commenced construction or reconstruction on or before publication of this final action and that previously demonstrated that their PM emissions were equal to or less than half of the PM emission limit are provided 5 years from publication of this action before they are required to conduct a performance test unless a new type of fuel, other than ultra-low-sulfur liquid fuel or gaseous fuels, is burned. In that situation, a new performance test is required within 60 days of burning the new fuel type.

Boilers with test results that show that PM emissions are greater than half of the PM emission limit are required to conduct PM testing every 3 years.

We have concluded that a provision that reduces the frequency of testing, rather than eliminates further testing, is more appropriate and environmentally protective for long-term compliance with the PM emission limit, but still provides compliance flexibility for low-emitting boilers. A review of PM emissions information in the records for the boiler rules identified several instances where PM emissions variability at an individual major source boiler was such that the minimum test average was below half of the Area Source Boilers Rule PM emission limit and the maximum test average was above the emission limit. Specifically, of 40 coal-fired major source boilers with multiple PM test events, four had such an instance. An investigation into urban metal HAP emission variability informed the EPA that metallic HAP emissions from individual boilers, for which PM serves as a surrogate, can vary and further supports our conclusion that periodic testing is necessary to provide compliance assurance that changes in operation of the boiler or air pollution control equipment have not increased PM emissions. Examination of the variability in non-Hg metallic HAP emissions at individual boilers showed average ratios of maximum emission rates to minimum emission

rates for major source boilers with multiple test results for TSM to be 2.79 for biomass-fired boilers and 2.55 for coal-fired boilers, and showed emission ratios for cadmium and lead for several biomass-fired area source boilers with multiple test results that ranged from 1.00 to 7.28 for cadmium and 1.00 to 6.40 for lead. Because PM is a surrogate for Hg for biomass- and oil-fired area source boilers, Hg variability at individual boilers was also examined, showing emission ratios of 4.6 for an area source biomass-fired boiler with multiple Hg fuel analysis samples and 3.2 and 16.2 for area source biomass-fired boilers with multiple Hg performance tests.

The January 2015 proposal requested comment on whether a requirement to burn only the fuel types and mixtures used to demonstrate that a boiler's PM emissions are equal to or less than half of the PM limit would limit PM emissions variability and also requested comment on including such a requirement. For the same reasons the EPA concluded that periodic testing (i.e., every 5 years) for these low-emitting boilers is necessary to provide long-term compliance assurance (i.e., the intra-unit variability in PM and metal HAP emissions identified based on a review of the public comments and available data), we have concluded that introduction of a new fuel type, other than ultra-low-sulfur liquid fuel or gaseous fuels, in between the 5-year tests requires a new performance test within 60 days of

burning a new fuel type. 40 CFR 63.11212(c) requires that performance stack tests be conducted while burning the type of fuel or mixture of fuels that have the highest emissions potential for each regulated pollutant. The burning of a new fuel type, whether alone or in a mixture of fuels, could potentially increase emissions. Thus, we believe that this new requirement to test when a new fuel type is burned, along with the requirement in 40 CFR 63.11212(c) to test while burning the type of fuel or mixture of fuels that have the highest emissions potential, will limit PM emissions variability.

A detailed discussion of our findings is included in the "Response to 2015 Reconsideration Comments for Industrial, Commercial, and Institutional Boilers at Area Sources: National Emission Standards for Hazardous Air Pollutants" located in the docket.

E. Establishment of a Provision That Eliminates Further Fuel Sampling for Mercury for Certain Coal-Fired Boilers Based on Their Initial Compliance Demonstration

In the February 1, 2013, final amendments to the Area Source Boilers Rule, the EPA added a new provision that specifies that further fuel analysis sampling does not need to be conducted if, when demonstrating initial compliance with the Hg emission limit based on fuel analysis, the Hg constituents in the fuel or fuel mixture are measured to be equal to or less

than half of the Hg emission limit. The EPA received a petition asserting that the public lacked an opportunity to comment on the new provision that eliminates further fuel sampling for Hg for certain coal-fired boilers based on their initial compliance demonstration. In response to the petition, in the January 21, 2015, proposal, we solicited comment on the February 2013 provision, specifically requesting comment and supporting information on the magnitude and range of variability in Hg content in coal that is likely to be combusted in an individual boiler. More specifically, we requested comment on whether the variability within a specific fuel type or fuel mixture could result in an exceedance of the Hg limit by a boiler in the coal subcategory whose Hg content in their fuel or fuel mixture are demonstrated to be equal to or less than half of the Hg emission limit (i.e., a doubling or more of Hg emissions).

The EPA also solicited comment on an alternative provision that would specify less frequent fuel analysis sampling for Hg based on the initial compliance demonstration. Instead of eliminating further fuel analysis sampling for Hg, the alternative provision would specify that when demonstrating initial compliance with the Hg emission limit based on fuel analysis, if the Hg constituents in the fuel or fuel mixture are measured to be equal to or less than half of the Hg emission limit, additional fuel analysis sampling for Hg would not need

to be conducted for 12 months. We stated that, in such instances, the owner or operator would be required to continue to comply with all applicable operating limits and monitoring requirements, which include only burning the fuel types and fuel mixtures used to demonstrate compliance and keeping monthly records of fuel use.

In this action, the EPA is finalizing the alternative provision that requires further fuel analysis sampling for Hg every 12 months for certain coal-fired boilers based on their initial compliance demonstration, as described immediately above and in the January 2015 proposal, in place of the February 2013 final rule's provision that eliminated further fuel analysis sampling for Hg for such boilers, as discussed later in this section of the preamble.

Three commenters agreed with the provision that eliminates further fuel sampling for Hg for coal-fired boilers when initial compliance demonstrations based on fuel analysis show that the Hg constituents in their fuel or fuel mixture are equal to or less than half of the Hg emission limit and that requires the owner or operator to continue to comply with all applicable operating limits and monitoring requirements. Two commenters stated that the coal Hg content data in the EPA's Boiler MACT survey database support the provision in that the majority of the data is lower than the Hg emission limit for area source



coal-fired boilers. The commenters noted that the provision promotes use of low-mercury coal, one stating that the Hg content in petroleum coke has very little variability and referencing a particular facility where the Hg content is well below the Hg limit. One commenter further stated that the provision eliminates unnecessary reporting without compromising the environmental and health benefits of the Area Source Boilers Rule. Another commenter noted that for units complying with the Hg limit, subsequent fuel analysis would not provide additional useful information, is unnecessary, and the costs are unwarranted.

One commenter supported the alternative provision that would require less frequent (once every 12 months) fuel analysis sampling for Hg when initial compliance demonstrations based on fuel analysis show that the Hg constituents in the fuel or fuel mixture are equal to or less than half of the limit in lieu of totally eliminating further fuel sampling for Hg.

One commenter objected to a provision that eliminates or reduces further fuel sampling for Hg when initial compliance demonstrations based on fuel analysis show that the Hg constituents in the fuel or fuel mixture are equal to or less than half of the limit. The commenter asserted that because the EPA has promulgated MACT standards for coal-fired boilers at area sources, it is arbitrary and unlawful to not require

monitoring sufficient to assure compliance with the standards. The commenter further asserted that a single fuel analysis showing Hg content at or below half of the limit does not assure compliance with the standard in perpetuity, particularly in light of the high variability of the Hg content of the fuels burned. The commenter added that sources are allowed to burn highly non-homogenous fuels without changing subcategories, which enables a high degree of variability in emissions, and that many coal-fired boilers co-fire biomass of varying proportions. The commenter included their analysis of EPA fuel analysis data for major and area source boilers that shows that 22.5 percent of sources experienced sufficient variability in the Hg content of their coal to obtain a result in one fuel analysis low enough to exempt them from any future fuel sampling, while another analysis at the same facility exceeds the provision's Hg content limit. The commenter asserted that biomass fuels also have a large range of variability in Hg content.

Based on our review of the public comments and the data available for quantifying variability in coal Hg content, the EPA is finalizing the provision that specifies that further fuel analysis sampling for Hg does not need to be conducted for 12 months if, when demonstrating initial compliance with the Hg emission limit based on fuel analysis, the Hg constituents in

the fuel or fuel mixture are measured to be equal to or less than half of the Hg emission limit. New or reconstructed boilers that commenced construction or reconstruction on or before publication of this final action and that previously demonstrated that the Hg constituents in their fuel or fuel mixture were equal to or less than half of the Hg emission limit are provided 12 months from publication of this action before they are required to conduct fuel analysis sampling for Hg. The owner or operator is required to continue to comply with all applicable operating limits and monitoring requirements, which include only burning the fuel types and fuel mixtures used to demonstrate compliance and keeping monthly records of fuel use. As specified in 40 CFR 63.11220, a fuel analysis must be conducted before burning a new type of fuel or fuel mixture. Boilers with fuel analysis results that show that Hg constituents in the fuel or fuel mixture are greater than half of the Hg emission limit are required to conduct quarterly sampling.

A review of Hg fuel analysis data for area source coal-fired boilers informed the EPA that Hg content in coal combusted in individual boilers can vary by more than a factor of two. Specifically, of ten coal-fired boilers with multiple fuel analysis samples, four had ratios of maximum to minimum Hg emission rates that were greater than two (i.e., 2.2, 3.0, 5.8,

and 11.2). In addition, two of the boilers had fuel samples with Hg content that were less than half of the emission limit but other samples with Hg content that exceeded the emission limit. Based on this information, the EPA does not believe that finalizing a provision that eliminates further fuel analysis sampling for Hg based on a single demonstration is appropriate or environmentally protective for long-term compliance, but has concluded that it is appropriate to provide some compliance flexibility by reducing periodic fuel sampling for boilers combusting coal with low Hg content to every 12 months.

A detailed discussion of our findings is included in the "Response to 2015 Reconsideration Comments for Industrial, Commercial, and Institutional Boilers at Area Sources: National Emission Standards for Hazardous Air Pollutants" located in the docket.

#### **IV. Technical Corrections and Clarifications**

In the January 21, 2015, notice of reconsideration, the EPA also proposed to correct typographical errors and clarify provisions of the final rule that may have been unclear. This section of the preamble summarizes the refinements made to the proposed corrections and clarifications, as well as corrections and clarifications being finalized based on comment.

##### A. Affirmative Defense for Violation of Emission Standards

##### During Malfunction

The EPA received numerous comments on its proposal to remove from the current rule the affirmative defense to civil penalties for violations caused by malfunctions. Several commenters supported the removal of the affirmative defense for malfunctions. Other commenters opposed the removal of the affirmative defense provision.

First, a commenter (AF&PA) urged the EPA to publish a new or supplemental statement of basis and purpose for the proposed rule that explains (and allows for public comment on) the appropriateness of applying the boiler emission standards to malfunction periods without an affirmative defense provision.

Second, a commenter (AF&PA) argued the affirmative defense was something that the EPA considered necessary when the current standards were promulgated; it was part of the statement of basis and purpose for the standards required to publish under CAA section 307(d)(6)(A).

Third, commenters (CIBO/ACC) argued that the EPA should not remove the affirmative defense until the issue is resolved by the Court. Furthermore commenters (CIBO/ACC and AF&PA) argued the Natural Resources Defense Council (NRDC) Court decision that the EPA cites as the reason for eliminating the affirmative defense provisions does not compel the EPA's action to remove the affirmative defense in this rule.

Fourth, commenters (CIBO/ACC and AF&PA) argued that without affirmative defense or adjusted standards, the final rule provides sources no means of demonstrating compliance during malfunctions.

Fifth, commenters (CIBO/ACC, AF&PA, and Class of '85 Regulatory Response Group) urged the EPA to establish work practice standards that would apply during periods of malfunction instead of the emission rate limits, or a combination of work practices and alternative numerical emission limitations. Commenters noted that the EPA can address malfunctions using the authority Congress gave it in CAA sections 112(h) and 302(k) to substitute a design, equipment, work practice, or operational standard for a numerical emission limitation.

The Court recently vacated an affirmative defense in one of the EPA's CAA section 112(d) regulations. NRDC v. EPA, No. 10-1371 (D.C. Cir. April 18, 2014) 2014 U.S. App. LEXIS 7281 (vacating affirmative defense provisions in the CAA section 112(d) rule establishing emission standards for Portland cement kilns). The Court found that the EPA lacked authority to establish an affirmative defense for private civil suits and held that under the CAA, the authority to determine civil penalty amounts in such cases lies exclusively with the courts, not the EPA. Specifically, the Court found: "As the language of

the statute makes clear, the courts determine, on a case-by-case basis, whether civil penalties are 'appropriate.'" see NRDC, 2014 U.S. App. LEXIS 7281 at \*21 ("[U]nder this statute, deciding whether penalties are 'appropriate' in a given private civil suit is a job for the courts, not EPA."). As a result, the EPA is not including a regulatory affirmative defense provision in the final rule. The EPA notes that removal of the affirmative defense does not in any way alter a source's compliance obligations under the rule, nor does it mean that such a defense is never available.

Second, the EPA notes that the issue of establishing a work practice standard for periods of malfunctions or developing standards consistent with performance of best performing sources under all conditions, including malfunctions, was raised previously; see the discussion in the March 21, 2011, preamble to the final rule (76 FR 15560). In the most recent notice of proposed reconsideration (80 FR 2871, January 21, 2015), the EPA proposed to remove the affirmative defense provision, in light of the NRDC decision. The EPA did not propose or solicit comment on any revisions to the requirement that emissions standards be met at all times, or on alternative standards during periods of malfunctions. Therefore, the question of whether the EPA can and should establish different standards during malfunction periods,

including work practice standards, is outside the scope of this final reconsideration action.

Finally, in the event that a source fails to comply with an applicable CAA section 112(d) standard as a result of a malfunction event, the EPA's (or other delegated or approved authority's) ability to exercise its case-by-case enforcement discretion to determine an appropriate response provides sufficient flexibility in such circumstances as was explained in the preamble to the proposed rule. Further, as the Court recognized, in an EPA (or other delegated or approved authority) or citizen enforcement action, the Court has the discretion to consider any defense raised and determine whether penalties are appropriate. Cf. NRDC, 2014 U.S. App. LEXIS 7281 at \*24 (arguments that violation were caused by unavoidable technology failure can be made to the courts in future civil cases when the issue arises). The same is true for the presiding officer in EPA administrative enforcement actions. The EPA notes that the Court in United States Sugar Corp v. EPA (No. 11-1108, D.C. Cir., July 29, 2016) (slip op. at 34 - 36) rejected challenges to the EPA's approach of applying limits during periods of malfunctions, not establishing a separate work practice, and relying on enforcement discretion in individual cases.

#### B. Definition of Coal



The last part of the definition of coal published in the March 21, 2011, final rule (76 FR 15554) reads as follows: "Coal derived gases are excluded from this definition [of coal]." In the January 2015 proposal (80 FR 2871), the EPA proposed to modify this definition to read as follows: "Coal derived gases and liquids are excluded from this definition [of coal]." The EPA characterized its proposed change to the definition as one of several "clarifying changes and corrections." This proposed change was based on a question received on whether coal derived liquids were meant to be included in the coal definition.

The EPA received a comment disagreeing with the proposed change to the definition of coal. The commenter (CIBO/ACC) asserted that the revised definition is not logically consistent with the other fuel definitions and irrationally recategorizes specific units as liquid fuel fired where a data analysis would rationally lead them to remaining in the solid fuel category. Specifically, the commenter contended that it is illogical to treat coal derived liquids differently than coal-water mixtures and coal-oil mixtures, both of which are included in the proposed revised definition of "coal." The commenter explained that coal-water mixtures and coal-oil mixtures are both included in the definition and both are utilized as liquid oil or gas replacements fuels, similar to utilization of coal derived liquids.

The EPA also proposed the same modification to the definition of coal included in the Boiler MACT (80 FR 3090, January 21, 2015) and subsequently received several comments disagreeing with the proposed change in that action that we also believe are appropriate to consider in this action.

Specifically, one commenter who operates a facility with coal derived liquids contended that the composition and emission profile of coal derived liquids more closely resemble the coal from which they are derived than liquid fuels. The commenter also noted that coal derived liquid fuels are treated as coal/solid fossils in other related rules such as 40 CFR Part 60, subpart Db.

Based on these comments, the EPA is not finalizing any changes to the definition of coal. The definition published on March 21, 2011 (76 FR 15554) remains unchanged. As noted by the commenters, treating coal liquids as coal is consistent with the ICI Boiler NSPS (40 CFR part 60, subpart Db), and the EPA agrees with the commenters that coal derived liquids are more similar to coal solid fuels than liquid fuels.

#### C. Other Corrections and Clarifications

In finalizing the rule, the EPA is addressing several other technical corrections and clarifications in the regulatory language based on public comments that were received in response to the January 2015 proposal and other feedback as a result of

implementing the rule. In addition to the changes outlined in Table 1 of the January 21, 2015, proposal (80 FR 2879), the EPA is finalizing several other changes, as outlined in Table 2 as follows:

**Table 2. Summary of Technical Corrections and Clarifications  
Since January 2015 Proposal**

Section of subpart JJJJJJ	Description of correction
63.11195(c)	<ul style="list-style-type: none"> <li>Revised the paragraph to remove “unless such units do not combust hazardous waste and combust comparable fuels.” The comparable fuels exclusion codified in 40 CFR 261.38 was vacated by the Court.</li> </ul>
63.11223(c)	<ul style="list-style-type: none"> <li>Revised the paragraph to clarify the oxygen level set point for a source not subject to emission limits. The following sentence was added at the end of the paragraph, “If an oxygen trim system is utilized on a unit without emission standards to reduce the tune-up frequency to once every 5 years, set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up.” This clarification was made instead of the proposed clarification to 63.11224(a)(7).</li> </ul>
63.11225(e)	<ul style="list-style-type: none"> <li>Revised the paragraph to include current electronic reporting procedures.</li> </ul>
63.11237	<ul style="list-style-type: none"> <li>Revised the definition of “Liquid fuel” to remove the phrase “and comparable fuels as defined under 40 CFR 261.38.” The comparable fuels exclusion codified in 40 CFR 261.38 was vacated by the Court.</li> <li>Revised the definition of “Voluntary consensus standards (VCS)” to correct typographical errors.</li> </ul>

## **V. Other Actions We Are Taking**

Section 307(d) (7) (B) of the CAA states that "[o]nly an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review. If the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within such time or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule, the Administrator shall convene a proceeding for reconsideration of the rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed. If the Administrator refuses to convene such a proceeding, such person may seek review of such refusal in the United States court of appeals for the appropriate circuit (as provided in subsection (b))."

As to the first procedural criterion for reconsideration, a petitioner must show why the issue could not have been presented during the comment period, either because it was impracticable to raise the issue during that time or because the grounds for the issue arose after the period for public comment (but within 60 days of publication of the final action). The EPA is denying the petition for reconsideration on one issue (i.e., Authority

to Require an Energy Assessment) because this criterion has not been met. With respect to that issue, the petition reiterates comments made on the June 4, 2010, proposed rule during the public comment period for that rule. The EPA responded to those comments in the final rule and made appropriate revisions to the proposed rule after consideration of public comments received. It is well established that an agency may refine its proposed approach without providing an additional opportunity for public comment. See Community Nutrition Institute v. Block, 749 F.2d at 58 and International Fabricare Institute v. EPA, 972 F.2d 384, 399 (D.C. Cir. 1992) (notice and comment is not intended to result in "interminable back-and-forth[,] " nor is agency required to provide additional opportunity to comment on its response to comments) and Small Refiner Lead Phase-Down Task Force v. EPA, 705 F.2d 506, 547 (D.C. Cir. 1983) ("notice requirement should not force an agency endlessly to repropose a rule because of minor changes").

In the EPA's view, an objection is of central relevance to the outcome of the rule only if it provides substantial support for the argument that the promulgated regulation should be revised. See Union Oil v. EPA, 821 F.2d 768, 683 (D.C. Cir. 1987) (the Court declined to remand the rule because petitioners failed to show substantial likelihood that the final rule would have been changed based on information in the petition). See

also the EPA's Denial of the Petitions to Reconsider the Endangerment and Cause or Contribute Findings for Greenhouse Gases under section 202 of the CAA, 75 FR at 49556, 49561 (August 13, 2010). See also, 75 FR at 49556, 49560-49563 (August 13, 2010), and 76 FR at 4780, 4786-4788 (January 26, 2011) for additional discussion of the standard for reconsideration under CAA section 307(d)(7)(B).

In this final decision, several changes that are corrections, editorial changes, and minor clarifications have been made. In one instance, one of those changes made a petitioner's issue (i.e., Averaging Period for CO) moot. Therefore, we are denying reconsideration of that issue.

A. Request for Reconsideration of the Energy Assessment Requirement

The petitioner (AF&PA) alleged that a beyond-the-floor requirement of an energy assessment is outside the EPA's authority to set emissions standards under CAA section 112(d)(1) "for each category or subcategory of major sources and area sources." The petition contends that the EPA has defined the source category for these rules to include only specified types of boilers and process heaters and, therefore, those are the only sources for which the EPA may set standards under these rules.

The petitioner also alleged that the energy assessment requirement is not an "emissions standard" as that term is defined in the CAA and, therefore, the EPA does not have authority to prescribe such requirements. The petition contends that, furthermore, as a practical matter, even if energy efficiency projects are implemented, there is no guarantee that there will be a corresponding reduction in HAP emissions from affected boilers and process heaters.

While the petition refers to not only boilers, but also "process heaters," the EPA has defined the source category for the Area Source Boilers Rule to include only specified types of boilers and, therefore, those are the only sources for which the EPA has set standards under this rule. The petitioner has not demonstrated that it was impracticable to comment on these issues during the public comment period on the proposed Area Source Boilers Rule. In fact, petitioners provided the same comments during that comment period, and subsequently challenged the EPA's establishment of the energy assessment requirement. The Court in United States Sugar Corp. v. EPA (No. 11-1108, DC Cir., July 29, 2016) (slip op. at 52) rejected challenges to the energy assessment rule both as a beyond the floor MACT standard and as a GACT standard. Therefore, the EPA is denying the petition for reconsideration of this issue.

B. Request for Clarification of the Averaging Period for CO

One petitioner (AF&PA) requested clarification in Table 1 to subpart JJJJJJ of part 63. Specifically, Items 1 and 2 in Table 1 specify that units can comply with the CO limit using a 3-run average or a 10-day rolling average (when using CO CEMS). The Item 6 entry for CO does not include the averaging period text. The petitioner requested that text be added to Table 1, Item 6 that clarifies the averaging period for the CO limit (i.e., "3-run average or 10-day rolling average").

Item 6 of Table 1 to subpart JJJJJJ of part 63 has been amended to clarify that either a 3-run average or a 10-day rolling average is an appropriate averaging period for the CO emission limit. The petitioner's comments are, therefore, now moot and we are denying reconsideration on this issue.

## **VI. Impacts Associated With This Final Rule**

This action finalizes certain provisions and makes technical and clarifying corrections, but does not promulgate substantive changes to the February 2013 final Area Source Boilers Rule (78 FR 7488). The EPA is finalizing the definitions of startup and shutdown that were promulgated in the February 2013 final rule along with revisions we proposed to make to those definitions, including an alternate definition of startup, and minor adjustments based on public comments. The revisions to the definitions of startup and shutdown clarify the beginning and end of startup and shutdown periods, but do not change the



regulatory requirements that apply during those periods or the boilers that are subject to those requirements. We are retaining the subcategory and separate requirements for limited-use boilers, consistent with the February 2013 final rule. The EPA is amending the reconsidered provisions regarding the alternative PM standard for new oil-fired boilers that combust low-sulfur oil, the elimination of further performance testing for PM for certain boilers based on their initial compliance test, and the elimination of further fuel sampling for Hg for certain coal-fired boilers based on their initial compliance demonstration, consistent with the alternative provisions for which comment was solicited in the January 2015 proposal.

Promulgation of the amendments contained in this action does not change the coverage of the final rule nor does it affect the estimated emission reductions, control costs or the benefits of the rule in substance compared to the March 2011 final rule. The EPA explained in the preamble to the February 2013 final rule that promulgated amendments, including this action's five reconsidered provisions, that those amendments did not impose any additional regulatory requirements beyond those imposed by the March 2011 final rule and, in fact, would result in a decrease in burden. We further explained that, as compared to the control costs estimated for the March 2011 final rule, the February 2013 final action would not result in any

meaningful change in capital and annual cost. See 78 FR 7503. Similarly, although this action amends three of the reconsidered provisions, it does not impose any additional regulatory requirements beyond those imposed by the March 2011 final rule and would result in a decrease in that burden. As discussed in detail in sections III.B, D, and E of this preamble, the three amended provisions regard compliance flexibilities provided in the February 2013 final rule that we have now determined need to be adjusted to be more environmentally protective and ensure compliance with the CAA. Thus, when compared to the February 2013 provisions, the amended provisions could result in minimal additional impacts on boilers that choose to comply with the amended provisions. In that they are compliance flexibilities and a facility's ability to use the provisions will be on a site-specific basis, the EPA cannot anticipate who will be in a position to use the provisions. We, however, can generally describe what those potential impacts would be.

As discussed in section III.B of this preamble, the EPA is finalizing an alternative PM standard that specifies that new or reconstructed boilers that combust only ultra-low-sulfur liquid fuel (i.e., a distillate oil that has less than or equal to 15 ppm sulfur) meet GACT for PM in place of the February 2013 final rule's alternative PM standard for new or reconstructed oil-fired boilers that combust low-sulfur oil (i.e., oil that

contains no more than 0.50 weight percent sulfur). The provision being finalized that specifies that certain boilers meet GACT for PM and, thus, are not subject to the PM emission limit, potentially applies to the subset of oil-fired boilers that are subject to PM emission limits (i.e., new and reconstructed boilers with heat input capacity of 10 MMBtu/hr or greater), including boilers currently meeting the alternative PM standard for boilers that combust low-sulfur oil. The provision being finalized may result in a minimal increase in burden on that subset of sources, when compared to the February 2013 provision that specified that low-sulfur oil-burning boilers meet GACT for PM and are not subject to the PM emission limit. Boilers currently meeting the alternative PM standard for low-sulfur oil burning boilers are provided 3 years from publication of this action before becoming subject to the PM emission limit, providing them time to decide how to comply (i.e., combust only ultra-low-sulfur liquid fuel or conduct a performance stack test demonstrating compliance with the PM emission limit). A number of such boilers, however, would not experience any increase in burden if they were meeting the February 2013 provision by burning ultra-low-sulfur liquid fuel. Specifically, this would be the situation in states such as New York, Connecticut, and New Jersey, which currently limit the sulfur content in oil used for heating purposes to less than 15 ppm. Oil-fired boilers in

Maine, Massachusetts, and Vermont used for heating will become subject to 15 ppm sulfur requirements in 2018, which is within the 3-year compliance period provided to boilers currently meeting the alternative PM standard for low-sulfur oil burning boilers. The burden associated with the provision being finalized is still less than the burden that was imposed by the March 2011 final rule which required all oil-fired boilers subject to a PM emission limit to conduct performance stack testing for PM every 3 years.

As discussed in section III.D of this preamble, the EPA is finalizing a provision that specifies that when demonstrating initial compliance with the PM emission limit, if performance test results show that PM emissions from an affected boiler are equal to or less than half of the applicable PM emission limit, additional PM emissions testing does not need to be conducted for 5 years in place of the February 2013 final rule's provision that eliminated further PM performance testing for such boilers. The provision being finalized that allows certain boilers to conduct PM emissions testing every 5 years potentially applies to the subset of boilers that are subject to PM emission limits (i.e., new and reconstructed boilers with heat input capacity of 10 MMBtu/hr or greater), including boilers that previously demonstrated that their PM emissions were equal to or less than half of the PM emission limit. The provision being finalized

will result in a minimal increase in burden on that subset of sources, when compared to the February 2013 provision that eliminated further PM emissions testing for such sources, in that they will be required to conduct a performance stack test for PM every 5 years. The burden associated with the provision being finalized is still less than the burden that was imposed by the March 2011 final rule which required all boilers subject to a PM emission limit to conduct performance stack testing for PM every 3 years.

As discussed in section III.E of this preamble, the EPA is finalizing a provision that specifies that when demonstrating initial compliance with the Hg emission limit based on fuel analysis, if the Hg constituents in the fuel or fuel mixture are measured to be equal to or less than half of the Hg emission limit, additional fuel analysis sampling for Hg would not need to be conducted for 12 months in place of the provision that eliminated further fuel sampling for such boilers. The provision being finalized that allows certain boilers to conduct fuel analysis sampling for Hg every 12 months potentially applies to the subset of boilers that are subject to Hg emission limits (i.e., coal-fired boilers with heat input capacity of 10 MMBtu/hr or greater), including boilers that previously demonstrated that the Hg constituents in their fuel or fuel mixture were equal to or less than half of the Hg emission

limit. The provision being finalized will result in a minimal increase in burden on that subset of sources, when compared to the February 2013 provision that eliminated further fuel analysis sampling for Hg for such sources, in that they will be required to conduct fuel analysis sampling for Hg every 12 months. The burden associated with the provision being finalized is still less than the burden that was imposed by the March 2011 final rule which required all boilers that demonstrated compliance with the Hg emission limit based on fuel analysis to conduct fuel analysis sampling for Hg on a monthly basis.

## **VII. Statutory and Executive Order Reviews**

Additional information about these statutes and Executive Orders can be found at <http://www2.epa.gov/laws-regulations/laws-and-executive-orders>.

### A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a significant regulatory action and was, therefore, not submitted to the Office of Management and Budget (OMB) for review.

### B. Paperwork Reduction Act (PRA)

This action which finalizes certain provisions and makes technical and clarifying corrections will result in no significant changes to the information collection requirements

of the promulgated rule and will have no increased impact on the information collection estimate of projected cost and hour burden made and approved by OMB. The EPA explained in the preamble to the February 2013 final rule that promulgated amendments, including this action's five reconsidered provisions, that those amendments did not impose any additional regulatory requirements beyond those imposed by the March 2011 final rule and, in fact, would result in a decrease in burden. Accordingly, the ICR was not revised as a result of the February 2013 final rule. Similarly, although this action amends three of the reconsidered provisions, it does not impose any additional regulatory requirements beyond those imposed by the March 2011 final rule and would result in a decrease in that burden. The three amended provisions regard compliance flexibilities that allow reduced performance stack testing and/or fuel sampling for certain boilers. Therefore, the ICR has not been revised as a result of this action. The OMB has previously approved the information collection activities contained in the existing regulations and has assigned OMB control number 2060-0668.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. In making this determination, the impact of concern is any significant adverse economic impact on small entities. The

small entities subject to the requirements of this action are owners and operators of coal-, biomass-, and oil-fired boilers located at area sources of HAP emissions. The EPA explained in the preamble to the February 2013 final rule that promulgated amendments to the March 2011 final rule that those amendments were closely related to the final Area Source Boilers Rule, which the EPA signed on February 21, 2011, and that took effect on May 20, 2011. We further explained that the EPA prepared a final regulatory flexibility analysis in connection with the final Area Source Boilers Rule and, therefore, pursuant to section 605(c), the EPA was not required to complete a final regulatory flexibility analysis for the February 2013 final rule. (78 FR 7503-7504, February 1, 2013.) This action finalizes certain provisions and makes technical and clarifying corrections, but does not promulgate substantive changes to the February 2013 final Area Source Boilers Rule. Further, as explained in section VI of this preamble, the February 2013 final rule that promulgated amendments, including this action's reconsidered provisions, did not impose any additional regulatory requirements beyond those imposed by the March 2011 final rule and, in fact, would result in a decrease in burden. Similarly, although this action amends three of the reconsidered provisions, it does not impose any additional regulatory



requirements beyond those imposed by the March 2011 final rule and would result in a decrease in that burden.

D. Unfunded Mandates Reform Act (UMRA)

This final action does not contain an unfunded mandate of \$100 million or more as described in UMRA, 2 U.S.C. 1531-1538, and does not significantly or uniquely affect small governments. This action finalizes certain provisions and makes technical and clarifying corrections, but does not promulgate substantive changes to the February 2013 final Area Source Boilers Rule.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This action does not have tribal implications as specified in Executive Order 13175. It will not have substantial direct effects on tribal governments, on the relationship between the federal government and Indian tribes, or on the distribution of power and responsibilities between the federal government and Indian tribes, as specified in Executive Order 13175. This action finalizes certain provisions and makes technical and

clarifying corrections, but does not promulgate substantive changes to the February 2013 final Area Source Boilers Rule. Thus, Executive Order 13175 does not apply to this action.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of "covered regulatory action" in section 2-202 of the Executive Order. This action is not subject to Executive Order 13045 because it does not concern an environmental health risk or safety risk.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not subject to Executive Order 13211 because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act (NTTAA)

This action does not involve any new technical standards from those contained in the March 21, 2011, final rule. Therefore, the EPA did not consider the use of any voluntary consensus standards. See 76 FR 15588 for the NTTAA discussion in the March 21, 2011, final rule.

J. Executive Order 12898: Federal Actions to Address  
Environmental Justice in Minority Populations and Low-Income  
Populations

The EPA believes that this action does **not** have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994). The environmental justice finding in the February 2013 final Area Source Boilers Rule (78 FR 7504, February 1, 2013) remains relevant in this action which finalizes certain provisions and makes technical and clarifying corrections, but does not promulgate substantive changes to the February 2013 final Area Source Boilers Rule.

K. Congressional Review Act (CRA)

This action is subject to the CRA, and the EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a "major rule" as defined by 5 U.S.C. 804(2).

**List of Subjects in 40 CFR Part 63**

Environmental protection, Administrative practice and procedure, Air pollution control, Hazardous substances.

Dated: August 23, 2016.

Gina McCarthy,  
Administrator.

For the reasons stated in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations is amended as follows:

**PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS  
FOR SOURCE CATEGORIES**

1. The authority citation for part 63 continues to read as follows:

**Authority:** 42 U.S.C. 7401, et seq.

**Subpart JJJJJJ—[AMENDED]**

2. Section 63.11195 is amended by revising paragraphs (c) and (k) to read as follows:

**§ 63.11195 Are any boilers not subject to this subpart?**

\* \* \* \* \*

(c) A boiler required to have a permit under section 3005 of the Solid Waste Disposal Act or covered by subpart EEE of this part (e.g., hazardous waste boilers).

\* \* \* \* \*

(k) An electric utility steam generating unit (EGU) as defined in this subpart.

3. Section 63.11210 is amended by:

a. Revising paragraphs (b) and (e);

b. Redesignating paragraphs (f) through (j) as paragraphs (g) through (k);

c. Adding a new paragraph (f); and

d. Revising the newly designated paragraphs (j) introductory text, (k) introductory text, and (k)(1) and (2).

The revisions and addition read as follows:

**§ 63.11210 What are my initial compliance requirements and by what date must I conduct them?**

\* \* \* \* \*

(b) For existing affected boilers that have applicable emission limits, you must demonstrate initial compliance with the applicable emission limits no later than 180 days after the compliance date that is specified in §63.11196 and according to the applicable provisions in §63.7(a)(2), except as provided in paragraph (k) of this section.

\* \* \* \* \*

(e) For new or reconstructed oil-fired boilers that commenced construction or reconstruction on or before September 14, 2016, that combust only oil that contains no more than 0.50 weight percent sulfur or a mixture of 0.50 weight percent sulfur oil with other fuels not subject to a particulate matter (PM) emission limit under this subpart and that do not use a post-combustion technology (except a wet scrubber) to reduce PM or sulfur dioxide emissions, you are not subject to the PM emission limit in Table 1 of this subpart until September 14, 2019, providing you monitor and record on a monthly basis the type of fuel combusted. If you intend to burn a new type of fuel or fuel mixture that does not meet the requirements of this paragraph, you must conduct a performance test within 60 days of burning the new fuel. On and after September 14, 2019, you are subject to the PM emission limit in Table 1 of this subpart and you must demonstrate compliance with the PM emission limit in Table 1 no later than March 12, 2020.

(f) For new or reconstructed boilers that combust only ultra-low-sulfur liquid fuel as defined in §63.11237, you are not subject to the PM emission limit in Table 1 of this subpart providing you monitor and record on a monthly basis the type of fuel combusted. If you intend to burn a fuel other than ultra-low-sulfur liquid fuel or gaseous fuels as defined in §63.11237,

you must conduct a performance test within 60 days of burning the new fuel.

\* \* \* \* \*

(j) For boilers located at existing major sources of HAP that limit their potential to emit (e.g., make a physical change or take a permit limit) such that the existing major source becomes an area source, you must comply with the applicable provisions as specified in paragraphs (j)(1) through (3) of this section.

\* \* \* \* \*

(k) For existing affected boilers that have not operated on solid fossil fuel, biomass, or liquid fuel between the effective date of the rule and the compliance date that is specified for your source in §63.11196, you must comply with the applicable provisions as specified in paragraphs (k)(1) through (3) of this section.

(1) You must complete the initial compliance demonstration, if subject to the emission limits in Table 1 to this subpart, as specified in paragraphs (a) and (b) of this section, no later than 180 days after the re-start of the affected boiler on solid fossil fuel, biomass, or liquid fuel and according to the applicable provisions in §63.7(a)(2).

(2) You must complete the initial performance tune-up, if subject to the tune-up requirements in §63.11223, by following

the procedures described in §63.11223(b) no later than 30 days after the re-start of the affected boiler on solid fossil fuel, biomass, or liquid fuel.

\* \* \* \* \*

4. Section 63.11214 is amended by revising paragraphs (a) through (c) to read as follows:

**§ 63.11214 How do I demonstrate initial compliance with the work practice standard, emission reduction measures, and management practice?**

(a) If you own or operate an existing or new coal-fired boiler with a heat input capacity of less than 10 million Btu per hour, you must conduct a performance tune-up according to §63.11210(c) or (g), as applicable, and §63.11223(b). If you own or operate an existing coal-fired boiler with a heat input capacity of less than 10 million Btu per hour, you must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted an initial tune-up of the boiler.

(b) If you own or operate an existing or new biomass-fired boiler or an existing or new oil-fired boiler, you must conduct a performance tune-up according to §63.11210(c) or (g), as applicable, and §63.11223(b). If you own or operate an existing biomass-fired boiler or existing oil-fired boiler, you must submit a signed statement in the Notification of Compliance



Status report that indicates that you conducted an initial tune-up of the boiler.

(c) If you own or operate an existing affected boiler with a heat input capacity of 10 million Btu per hour or greater, you must submit a signed certification in the Notification of Compliance Status report that an energy assessment of the boiler and its energy use systems was completed according to Table 2 to this subpart and that the assessment is an accurate depiction of your facility at the time of the assessment or that the maximum number of on-site technical hours specified in the definition of energy assessment applicable to the facility has been expended.

\* \* \* \* \*

5. Section 63.11220 is revised read as follows:

**§ 63.11220 When must I conduct subsequent performance tests or fuel analyses?**

(a) If your boiler has a heat input capacity of 10 million Btu per hour or greater, you must conduct all applicable performance (stack) tests according to §63.11212 on a triennial basis, except as specified in paragraphs (b) through (e) of this section. Triennial performance tests must be completed no more than 37 months after the previous performance test.

(b) For new or reconstructed boilers that commenced construction or reconstruction on or before September 14, 2016, when demonstrating initial compliance with the PM emission

limit, if your boiler's performance test results show that your PM emissions are equal to or less than half of the PM emission limit, you do not need to conduct further performance tests for PM until September 14, 2021, but must continue to comply with all applicable operating limits and monitoring requirements and must comply with the provisions as specified in paragraphs (b) (1) through (4) of this section.

(1) A performance test for PM must be conducted by September 14, 2021.

(2) If your performance test results show that your PM emissions are equal to or less than half of the PM emission limit, you may choose to conduct performance tests for PM every fifth year. Each such performance test must be conducted no more than 61 months after the previous performance test.

(3) If you intend to burn a new type of fuel other than ultra-low-sulfur liquid fuel or gaseous fuels as defined in §63.11237, you must conduct a performance test within 60 days of burning the new fuel type.

(4) If your performance test results show that your PM emissions are greater than half of the PM emission limit, you must conduct subsequent performance tests on a triennial basis as specified in paragraph (a) of this section.

(c) For new or reconstructed boilers that commenced construction or reconstruction after September 14, 2016, when

demonstrating initial compliance with the PM emission limit, if your boiler's performance test results show that your PM emissions are equal to or less than half of the PM emission limit, you may choose to conduct performance tests for PM every fifth year, but must continue to comply with all applicable operating limits and monitoring requirements and must comply with the provisions as specified in paragraphs (c)(1) through (3) of this section.

(1) Each such performance test must be conducted no more than 61 months after the previous performance test.

(2) If you intend to burn a new type of fuel other than ultra-low-sulfur liquid fuel or gaseous fuels as defined in §63.11237, you must conduct a performance test within 60 days of burning the new fuel type.

(3) If your performance test results show that your PM emissions are greater than half of the PM emission limit, you must conduct subsequent performance tests on a triennial basis as specified in paragraph (a) of this section.

(d) If you demonstrate compliance with the mercury emission limit based on fuel analysis, you must conduct a fuel analysis according to §63.11213 for each type of fuel burned as specified in paragraphs (d)(1) through (3) of this section. If you plan to burn a new type of fuel or fuel mixture, you must conduct a fuel analysis before burning the new type of fuel or mixture in your

boiler. You must recalculate the mercury emission rate using Equation 1 of §63.11211. The recalculated mercury emission rate must be less than the applicable emission limit.

(1) For existing boilers and new or reconstructed boilers that commenced construction or reconstruction on or before September 14, 2016, when demonstrating initial compliance with the mercury emission limit, if the mercury constituents in the fuel or fuel mixture are measured to be equal to or less than half of the mercury emission limit, you do not need to conduct further fuel analysis sampling until September 14, 2017, but must continue to comply with all applicable operating limits and monitoring requirements and must comply with the provisions as specified in paragraphs (d)(1)(i) and (ii) of this section.

(i) Fuel analysis sampling for mercury must be conducted by September 14, 2017.

(ii) If your fuel analysis results show that the mercury constituents in the fuel or fuel mixture are equal to or less than half of the mercury emission limit, you may choose to conduct fuel analysis sampling for mercury every 12 months.

(2) For new or reconstructed boilers that commenced construction or reconstruction after September 14, 2016, when demonstrating initial compliance with the mercury emission limit, if the mercury constituents in the fuel or fuel mixture are measured to be equal to or less than half of the mercury

emission limit, you may choose to conduct fuel analysis sampling for mercury every 12 months, but must continue to comply with all applicable operating limits and monitoring requirements.

(3) When demonstrating compliance with the mercury emission limit, if the mercury constituents in the fuel or fuel mixture are greater than half of the mercury emission limit, you must conduct quarterly sampling.

(e) For existing affected boilers that have not operated on solid fossil fuel, biomass, or liquid fuel since the previous compliance demonstration and more than 3 years have passed since the previous compliance demonstration, you must complete your subsequent compliance demonstration no later than 180 days after the re-start of the affected boiler on solid fossil fuel, biomass, or liquid fuel.

6. Section 63.11221 is amended by revising paragraph (c) to read as follows:

**§ 63.11221 Is there a minimum amount of monitoring data I must obtain?**

\* \* \* \* \*

(c) You may not use data collected during periods of startup and shutdown, monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or quality control activities in

calculations used to report emissions or operating levels. Any such periods must be reported according to the requirements in §63.11225. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system.

\* \* \* \* \*

7. Section 63.11222 is amended by revising paragraph (a) (2) to read as follows:

**§ 63.11222 How do I demonstrate continuous compliance with the emission limits?**

(a) \* \* \*

(2) If you have an applicable mercury or PM emission limit, you must keep records of the type and amount of all fuels burned in each boiler during the reporting period. If you have an applicable mercury emission limit, you must demonstrate that all fuel types and mixtures of fuels burned would result in lower emissions of mercury than the applicable emission limit (if you demonstrate compliance through fuel analysis), or result in lower fuel input of mercury than the maximum values calculated during the last performance stack test (if you demonstrate compliance through performance stack testing).

\* \* \* \* \*

8. Section 63.11223 is amended by revising paragraph (c) to read as follows:

**§ 63.11223 How do I demonstrate continuous compliance with the work practice and management practice standards?**

\* \* \* \* \*

(c) Boilers with an oxygen trim system that maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune-up must conduct a tune-up of the boiler every 5 years as specified in paragraphs (b)(1) through (7) of this section. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed boiler with an oxygen trim system, the first 5-year tune-up must be no later than 61 months after the initial startup. You may delay the burner inspection specified in paragraph (b)(1) of this section and inspection of the system controlling the air-to-fuel ratio specified in paragraph (b)(3) of this section until the next scheduled unit shutdown, but you must inspect each burner and system controlling the air-to-fuel ratio at least once every 72 months. If an oxygen trim system is utilized on a unit without emission standards to reduce the tune-up frequency to once every 5 years, set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up.

\* \* \* \* \*

9. Section 63.11225 is amended by revising paragraphs (a) (4) introductory text, (b) introductory text, (c) (2) (iv), (e), and (g) introductory text to read as follows:

**§ 63.11225 What are my notification, reporting, and recordkeeping requirements?**

(a) \* \* \*

(4) You must submit the Notification of Compliance Status no later than 120 days after the applicable compliance date specified in §63.11196 unless you own or operate a new boiler subject only to a requirement to conduct a biennial or 5-year tune-up or you must conduct a performance stack test. If you own or operate a new boiler subject to a requirement to conduct a tune-up, you are not required to prepare and submit a Notification of Compliance Status for the tune-up. If you must conduct a performance stack test, you must submit the Notification of Compliance Status within 60 days of completing the performance stack test. You must submit the Notification of Compliance Status in accordance with paragraphs (a) (4) (i) and (vi) of this section. The Notification of Compliance Status must include the information and certification(s) of compliance in paragraphs (a) (4) (i) through (v) of this section, as applicable, and signed by a responsible official.

\* \* \* \* \*



(b) You must prepare, by March 1 of each year, and submit to the delegated authority upon request, an annual compliance certification report for the previous calendar year containing the information specified in paragraphs (b)(1) through (4) of this section. You must submit the report by March 15 if you had any instance described by paragraph (b)(3) of this section. For boilers that are subject only to the energy assessment requirement and/or a requirement to conduct a biennial or 5-year tune-up according to §63.11223(a) and not subject to emission limits or operating limits, you may prepare only a biennial or 5-year compliance report as specified in paragraphs (b)(1) and (2) of this section.

\* \* \* \* \*

(c) \* \* \*

(2) \* \* \*

(iv) For each boiler subject to an emission limit in Table 1 to this subpart, you must keep records of monthly fuel use by each boiler, including the type(s) of fuel and amount(s) used. For each new oil-fired boiler that meets the requirements of §63.11210(e) or (f), you must keep records, on a monthly basis, of the type of fuel combusted.

\* \* \* \* \*

(e)(1) Within 60 days after the date of completing each performance test (as defined in §63.2) required by this subpart,

you must submit the results of the performance tests, including any associated fuel analyses, following the procedure specified in either paragraph (e)(1)(i) or (ii) of this section.

(i) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site ([https://www3.epa.gov/ttn/chief/ert/ert\\_info.html](https://www3.epa.gov/ttn/chief/ert/ert_info.html)) at the time of the test, you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>).) Performance test data must be submitted in a file format generated through the use of the EPA's ERT or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham,

NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(ii) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, you must submit the results of the performance test to the Administrator at the appropriate address listed in §63.13.

(2) Within 60 days after the date of completing each CEMS performance evaluation (as defined in §63.2), you must submit the results of the performance evaluation following the procedure specified in either paragraph (e)(2)(i) or (ii) of this section.

(i) For performance evaluations of continuous monitoring systems measuring relative accuracy test audit (RATA) pollutants that are supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the evaluation, you must submit the results of the performance evaluation to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) Performance evaluation data must be submitted in a file format generated through the use of the EPA's ERT or an alternate file format consistent with the XML schema listed on the EPA's ERT Web site. If you claim that some of the performance evaluation information being submitted is CBI, you must submit a complete file

generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic storage media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(ii) For any performance evaluations of continuous monitoring systems measuring RATA pollutants that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the evaluation, you must submit the results of the performance evaluation to the Administrator at the appropriate address listed in §63.13.

\* \* \* \* \*

(g) If you have switched fuels or made a physical change to the boiler and the fuel switch or change resulted in the applicability of a different subcategory within this subpart, in the boiler becoming subject to this subpart, or in the boiler switching out of this subpart due to a fuel change that results in the boiler meeting the definition of gas-fired boiler, as defined in §63.11237, or you have taken a permit limit that

resulted in you becoming subject to this subpart or no longer being subject to this subpart, you must provide notice of the date upon which you switched fuels, made the physical change, or took a permit limit within 30 days of the change. The notification must identify:

\* \* \* \* \*

**§ 63.11226 [Removed and Reserved]**

10. Section 63.11226 is removed and reserved.

11. Section 63.11237 is amended by:

- a. Removing the definition of "Affirmative defense";
- b. Adding in alphabetical order a definition for "Annual capacity factor";
- c. Revising the definition of "Dry scrubber";
- d. Adding in alphabetical order a definition for "Fossil fuel";
- e. Revising the definitions of "Gas-fired boiler", "Limited-use boiler", "Liquid fuel", "Load fraction", "Oxygen trim system", "Shutdown", and "Startup";
- f. Adding in alphabetical order definitions for "Ultra-low-sulfur liquid fuel" and "Useful thermal energy"; and
- g. Revising the definition of "Voluntary Consensus Standards (VCS)".

The revisions and additions read as follows:

**§ 63.11237 What definitions apply to this subpart?**

\* \* \* \*

Annual capacity factor means the ratio between the actual heat input to a boiler from the fuels burned during a calendar year and the potential heat input to the boiler had it been operated for 8,760 hours during a year at the maximum steady state design heat input capacity.

\* \* \* \*

Dry scrubber means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gas in the exhaust stream forming a dry powder material. Sorbent injection systems used as control devices in fluidized bed boilers are included in this definition. A dry scrubber is a dry control system.

\* \* \* \*

Fossil fuel means natural gas, oil, coal, and any form of solid, liquid, or gaseous fuel derived from such material.

\* \* \* \*

Gas-fired boiler includes any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or for periodic testing, maintenance, or operator training on liquid fuel. Periodic testing, maintenance, or

operator training on liquid fuel shall not exceed a combined total of 48 hours during any calendar year.

\* \* \* \*

Limited-use boiler means any boiler that burns any amount of solid or liquid fuels and has a federally enforceable annual capacity factor of no more than 10 percent.

Liquid fuel includes, but is not limited to, distillate oil, residual oil, any form of liquid fuel derived from petroleum, used oil meeting the specification in 40 CFR 279.11, liquid biofuels, biodiesel, and vegetable oil.

Load fraction means the actual heat input of a boiler divided by heat input during the performance test that established the minimum sorbent injection rate or minimum activated carbon injection rate, expressed as a fraction (e.g., for 50 percent load the load fraction is 0.5). For boilers that co-fire natural gas with a solid or liquid fuel, the load fraction is determined by the actual heat input of the solid or liquid fuel divided by heat input of the solid or liquid fuel fired during the performance test (e.g., if the performance test was conducted at 100 percent solid fuel firing, for 100 percent load firing 50 percent solid fuel and 50 percent natural gas, the load fraction is 0.5).

\* \* \* \*

Oxygen trim system means a system of monitors that is used to maintain excess air at the desired level in a combustion device over its operating load range. A typical system consists of a flue gas oxygen and/or carbon monoxide monitor that automatically provides a feedback signal to the combustion air controller or draft controller.

\* \* \* \* \*

Shutdown means the period in which cessation of operation of a boiler is initiated for any purpose. Shutdown begins when the boiler no longer supplies useful thermal energy (such as steam or hot water) for heating, cooling, or process purposes or generates electricity, or when no fuel is being fed to the boiler, whichever is earlier. Shutdown ends when the boiler no longer supplies useful thermal energy (such as steam or hot water) for heating, cooling, or process purposes or generates electricity, and no fuel is being combusted in the boiler.

\* \* \* \* \*

Startup means:

(1) Either the first-ever firing of fuel in a boiler for the purpose of supplying useful thermal energy (such as steam or hot water) for heating and/or producing electricity, or for any other purpose, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the useful thermal energy (such as steam or hot water) from the



boiler is supplied for heating and/or producing electricity, or for any other purpose, or

(2) The period in which operation of a boiler is initiated for any purpose. Startup begins with either the first-ever firing of fuel in a boiler for the purpose of supplying useful thermal energy (such as steam or hot water) for heating, cooling or process purposes or producing electricity, or the firing of fuel in a boiler for any purpose after a shutdown event. Startup ends 4 hours after when the boiler supplies useful thermal energy (such as steam or hot water) for heating, cooling, or process purposes or generates electricity, whichever is earlier.

\* \* \* \* \*

Ultra-low-sulfur liquid fuel means a distillate oil that has less than or equal to 15 parts per million (ppm) sulfur.

Useful thermal energy means energy (i.e., steam or hot water) that meets the minimum operating temperature, flow, and/or pressure required by any energy use system that uses energy provided by the affected boiler.

\* \* \* \* \*

Voluntary Consensus Standards (VCS) mean technical standards (e.g., materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. EPA/Office of Air Quality Planning and Standards, by precedent, has only used VCS

that are written in English. Examples of VCS bodies are:

American Society of Testing and Materials (ASTM, 100 Barr Harbor Drive, P.O. Box CB700, West Conshohocken, Pennsylvania 19428-B2959, (800) 262-1373, <http://www.astm.org>), American Society of Mechanical Engineers (ASME, Three Park Avenue, New York, NY 10016-5990, (800) 843-2763, <http://www.asme.org>), International Standards Organization (ISO 1, ch. de la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland, +41 22 749 01 11, <http://www.iso.org/iso/home.htm>), Standards Australia (AS Level 10, The Exchange Centre, 20 Bridge Street, Sydney, GPO Box 476, Sydney NSW 2001, + 61 2 9237 6171 <http://www.standards.org.au>), British Standards Institution (BSI, 389 Chiswick High Road, London, W4 4AL, United Kingdom, +44 (0)20 8996 9001, <http://www.bsigroup.com>), Canadian Standards Association (CSA, 5060 Spectrum Way, Suite 100, Mississauga, Ontario L4W 5N6, Canada, 800-463-6727, <http://www.csa.ca>), European Committee for Standardization (CEN CENELEC Management Centre Avenue Marnix 17 B-1000 Brussels, Belgium +32 2 550 08 11, <http://www.cen.eu/cen>), and German Engineering Standards (VDI Guidelines Department, P.O. Box 10 11 39 40002, Duesseldorf, Germany, +49 211 6214-230, <http://www.vdi.eu>). The types of standards that are not considered VCS are standards developed by: the United States, e.g., California Air Resources Board (CARB) and Texas Commission on Environmental Quality (TCEQ);

industry groups, such as American Petroleum Institute (API), Gas Processors Association (GPA), and Gas Research Institute (GRI); and other branches of the U.S. Government, e.g., Department of Defense (DOD) and Department of Transportation (DOT). This does not preclude EPA from using standards developed by groups that are not VCS bodies within their rule. When this occurs, EPA has done searches and reviews for VCS equivalent to these non-EPA methods.

\* \* \* \* \*

12. Table 1 to Subpart JJJJJJ of Part 63 is amended by revising the entry 6 to read as follows:

**Table 1 to Subpart JJJJJJ of Part 63 – Emission Limits**

\* \* \* \* \*

If your boiler is in this subcategory...	For the following pollutants...	You must achieve less than or equal to the following emission limits, except during periods of startup and shutdown ...
* * * *	* * *	
6. Existing coal-fired boilers with heat input capacity of 10 MMBtu/hr or greater that do not meet the definition of limited-use boiler.	a. Mercury	2.2E-05 lb per MMBtu of heat input.
	b. CO	420 ppm by volume on a dry basis corrected to 3 percent oxygen (3-run average or 10-day rolling average).

13. Table 2 to Subpart JJJJJJ of Part 63 is amended by revising the entry 16 to read as follows:

**Table 2 to Subpart JJJJJJ of Part 63 – Work Practice Standards, Emission Reduction Measures, and Management Practices**

\* \* \* \* \*

If your boiler is in this subcategory...	You must meet the following...
* * * * *	* *
<p>16. Existing coal-fired, biomass-fired, or oil-fired boilers (units with heat input capacity of 10 MMBtu/hr and greater), not including limited-use boilers.</p>	<p>Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table satisfies the energy assessment requirement. Energy assessor approval and qualification requirements are waived in instances where past or amended energy assessments are used to meet the energy assessment requirements. A facility that operated under an energy management program developed according to the ENERGY STAR guidelines for energy management or compatible with ISO 50001 for at least 1 year between January 1, 2008, and the compliance date specified in §63.11196 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items (1) to (4) appropriate for the on-site technical hours listed in §63.11237:</p> <ul style="list-style-type: none"> <li>(1) A visual inspection of the boiler system,</li> <li>(2) An evaluation of operating characteristics of the affected</li> </ul>

If your boiler is in this subcategory...	You must meet the following...
	<p>boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints,</p> <p>(3) An inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator,</p> <p>(4) A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage,</p> <p>(5) A list of major energy conservation measures that are within the facility's control,</p> <p>(6) A list of the energy savings potential of the energy conservation measures identified, and</p> <p>(7) A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.</p>

14. Table 6 to Subpart JJJJJJ of Part 63 is amended by revising the entry 2 to read as follows:

**Table 6 to Subpart JJJJJJ of Part 63 – Establishing Operating Limits**

\* \* \* \* \*

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must...	Using . . .	According to the following requirements
* * *	* * *	* *		

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must...	Using . . .	According to the following requirements
2. Mercury	Dry sorbent or activated carbon injection rate operating parameters.	Establish a site-specific minimum sorbent or activated carbon injection rate operating limit according to §63.11211 (b) .	Data from the sorbent or activated carbon injection rate monitors and the mercury performance stack tests.	(a) You must collect sorbent or activated carbon injection rate data every 15 minutes during the entire period of the performance stack tests;
				(b) Determine the average sorbent or activated carbon injection rate for each individual test run in the three-run performance stack test by computing the average of all the 15-minute readings taken during each test run.

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must...	Using . . .	According to the following requirements
				(c) When your unit operates at lower loads, multiply your sorbent or activated carbon injection rate by the load fraction, as defined in §63.11237, to determine the required injection rate.
*   *   *	*   *   *	*   *		